

ABHILASH BISWAS

(781) 654-9680 | abhilasb@andrew.cmu.edu | [Website](#) | [LinkedIn](#) | [Github](#)

EDUCATION

Carnegie Mellon University, Pittsburgh, PA

M.S. in Public Policy and Data Analytics (GPA: 4.00/4.00)

Pittsburgh, PA

Aug 2021-May 2023

- Coursework: Causal inference, Machine learning, optimization, AI ethics and fairness, public policy

St Stephen's College, University of Delhi

B.A. Economics

New Delhi, India

Jul 2014-May 2017

- Graduated with rank 1 out of 100 students in the Department of Economics

PROFESSIONAL EXPERIENCE

eScience Institute, University of Washington

Data Science for Social Good summer fellow

Seattle, WA (Remote)

Jun 2022-Aug 2022

- Developed a [python library](#) that applies **computer vision techniques** to enable astronomers to detect and quantify bright satellite streaks in telescope images
- The library replaces manual labelling of telescope images, **saving 20 hours per 1000 images**

IDinsight (website [here](#))

Manager (10 months), Senior Associate (1 year), Associate (2 years)

New Delhi, India

Aug 2017-May 2021

- Created a new Strategic Business Unit, Data on Demand (DoD)**, that leverages technological innovation to make high quality data-driven evidence accessible to policymakers
- Led the product team to develop **scalable software systems** that helped the organization manage field data collection across 30,000 households in 20 Indian states simultaneously
- Led [innovations](#) to develop remote data collection methods. Deployed it to provide [real time data](#) from 20 states to the central government of India, World Bank, and the Gates Foundation during COVID-19 lockdown
- Supervised a team of 20 centrally located and 500 decentralized members to provide [statistical evaluation support](#) to government of India's flagship welfare program

PROJECTS

Helping Johnson County predict people in need of proactive mental health services. Presentation [here](#).

- Implemented an **end to end machine learning pipeline** to predict who may need mental health services in the near future. Pipeline included analytical formulation, data processing from multiple county datasets, supervised models, **temporal validation**, **bias/fairness audit** and field trial design
- Collaborated (in progress) with the county to deploy the model and improve it based on feedback from the field

Predicting police violence in Chicago. Presentation [here](#). [GitHub repo](#).

- Created **classification and unsupervised models** using Census, citizen reported data and Chicago city's open data to predict chances of police violence at a Census tract level in Chicago.

Optimizing placement of a new grocery store in Pittsburgh to minimize food insecurity. [GitHub repo](#).

- Applied **constrained optimization and geospatial analysis** to find the store location that can maximize food access.

HealthAccess – a proof of concept app to find nearest hospitals. [GitHub repo](#).

- Deployed python-based **web scraping, API extraction and text pattern matching** to provide curated information on nearby healthcare facilities to users seeking medical help.

TECHNICAL SKILLS

Programming: Python, SQL, AWS, R, STATA, SurveyCTO

Tools/packages: PyTorch, Scikit-Learn, PySpark, OpenCV, Scikit-Image, Spacy, NLTK, GurobiPy, R Shiny

Statistics and ML: Supervised and unsupervised learning, Randomized Control Trial, A/B testing